### Effectiveness of Treatment Mental Disorders and Cost of Addictive and



HV 4999 .2 C67 1994

## SAMHSA

Substance Abuse and Mental Health Services Administration Public Health Service

U.S Department of Health and Human Services



HV4999,2 .C67 1994

### **OVERVIEW**

Addictive and mental disorders extract an enormous economic and social cost from society, including the breakup of our families ... violence in our neighborhoods ... homelessness in our streets. We have reduced some of the consequences of these problems. We can do more.

Four salient points are supported by illustrative data in this chart book, as follows:

- The economic and social costs of untreated addictive and mental disorders are very high to individuals and to society;
- Effective treatments for many of these disorders are well documented;
- In the context of managed health care, with quality standards maintained, treatment costs can be both affordable and controllable; and,
- Treatment of substance abuse and mental illness provides substantial cost savings in other medical care areas.





### Addictive and Mental Disorders and Prevalence of Economic Costs

### for addictive and mental disorders. Society pays an enormous price

- This Nation's direct medical care costs and indirect costs (e.g. productivity losses) of alcohol and other drug abuse and mental illness totalled more than \$314 billion in 1990 (Rice et al., 1990). That was more than cancer (\$104 billion in 1987), respiratory disease (\$99 billion in 1990), AIDS (\$66 billion in 1991), or coronary heart disease (\$43 billion in 1987) (Greenberg et al., 1993).
- One-third of all criminal justice costs relate to alcohol and other drug abuse and mental illness. These costs include police protection, legal and judicial services, drug traffic control, and other services (Rice et al., 1990).
- An estimated 50 percent of all homicides, 30 percent of all suicides and 30 percent of accidental deaths are associated with alcohol abuse (Moore et al., 1990).

## 1990 ADM Costs To Society In Billions (Total = \$314)

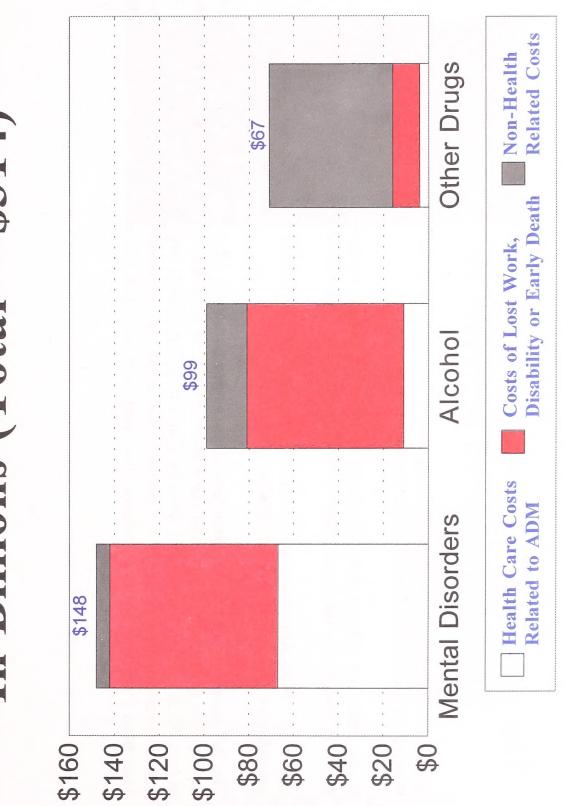


Chart 1

## The prevalence of addictive and mental disorders is substantial and widespread.

- An estimated 11.4 million Americans use illicit drugs and 10 million are problem drinkers (Preliminary estimates, NHSDA, SAMHSA, 1993).
- In one study, an estimated 6.72 percent of pregnant women used alcohol and 3.49 percent used an illicit drug in the hours and days preceding delivery (Vega et al., 1993).
- Some 15 million Americans are affected by depression during their lifetimes -- twice as many as are affected by coronary heart disease (Greenberg, 1993).
- in a given year (individuals may have more than one disorder in that year). Anxiety disorders The full spectrum of mental disorders affects approximately 22 percent of the adult population affect 12.6 percent; affective disorders affect 9.5 percent; cognitive impairment affects 2.7 percent; schizophrenia affects 1.1 percent; and antisocial personality disorder affects 1.5 percent. Less than 7 percent of the population has symptoms for a full year or longer (Regier et al., 1993).

# Annual Prevalence of Addictive and Mental Disorders Among Adults

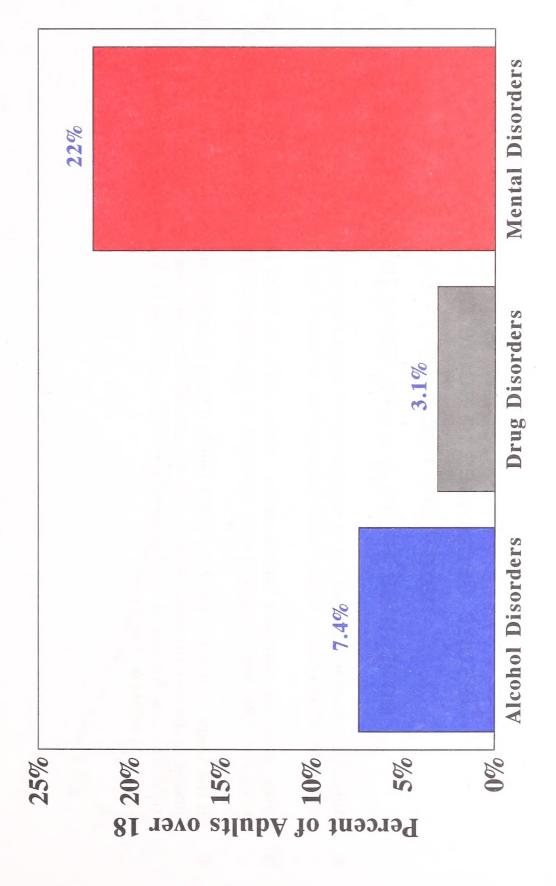


Chart 2

Source: Regier, et al., 1993

### Despite decreases in some categories, continues to be a significant problem. hard-core illicit drug use

- Although occasional, casual use of cocaine has dropped significantly since a peak in 1985, the population of hard-core, heavy users has remained constant (Gfroerer & Brodsky, 1993).
- While drug use generally has decreased since 1975, in 1992 there were signs that use of marijuana, LSD and stimulants was increasing among eighth graders (Johnston et al., 1993).
- increased 34 percent nationwide, while cocaine-related visits increased by 18 percent. For the population over the age of 35, heroin-related visits increased by 47 percent (Estimates from the In the single year from 1991 to 1992, heroin-related hospital emergency department episodes DAWN, SAMHSA, 1993).

## Any Drug Use in Past Month Illicit Drug Use 1982-1992

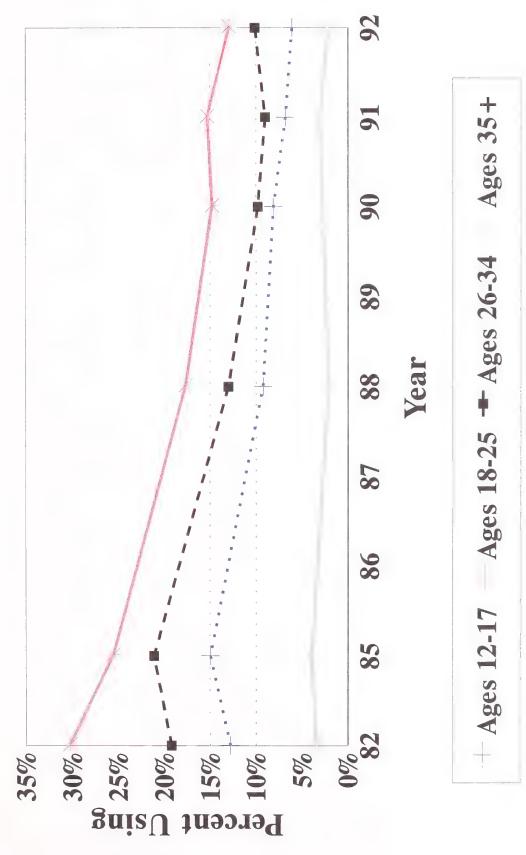


Chart 3

Source: Office of Applied Studies, SAMHSA, 1993 National Household Survey on Drug Abuse

# Effectiveness of Treatment

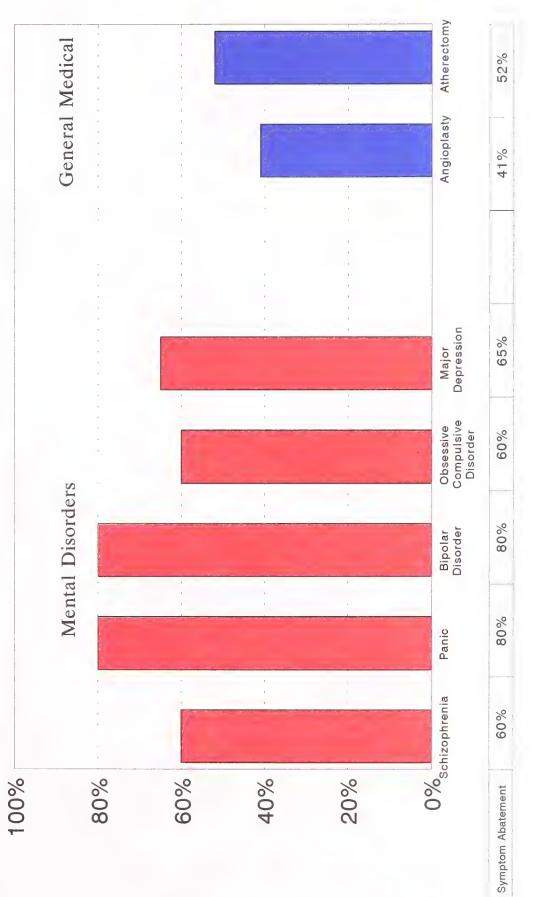
## is successful and comparable to somatic therapies. Treatment for mental disorders

- Outpatient treatment and rehabilitation programs for people with schizophrenia can reduce psychiatric re-hospitalization rates, improve quality of life, prevent homelessness, and increase the likelihood of gainful employment (Hargreaves & Shumway, 1989).
- Half of the people who receive treatment for schizophrenia either recover completely or are able to live independently with only modest psychosocial support (Biology of mental disorders, OTA,
- While treatment is effective, depression is underdiagnosed and undertreated by primary care and other non-psychiatric practitioners (Clinical practice guideline 5, AHCPR, 1993).

#### SAMHSA

## Short Term Treatment Efficacy for Mental Disorders





# Treatment for mental disorders is effective.

- In 1990, some \$63.1 billion worth of goods and services were not produced because workers were struggling with the effects of untreated mental disorders (Rice & Miller, 1993).
- Depression alone costs an estimated \$44 billion each year. Employers bear more than half this cost in employee absenteeism and reduced productivity (Greenberg, 1993).
- Following treatment for mental disorders, work outcomes improve consistently and significantly, according to recent meta-analyses. Outcomes continue to improve with increased duration of treatment (Mintz et al., 1992).

#### SAWHSA

## for Severe Mental Illness One Year Relapse Rates

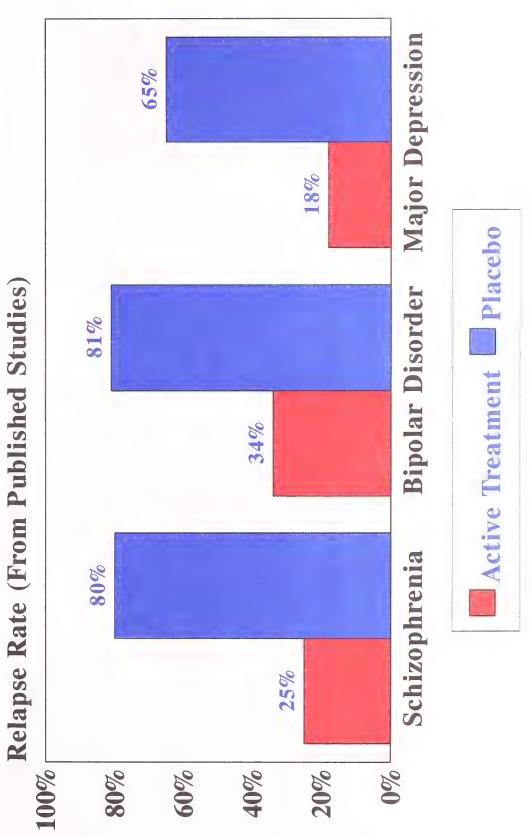


Chart 5

### SAMHSA

## of children and adolescents is effective. Treatment for mental disorders

- Prevalence estimates converge on a range of 3 to 5 percent of all children under age 18 as having a severe mental disorder (Brandenberg et al, 1991).
- Comprehensive community-based services for children and adolescents cut State hospital admissions and inpatient bed days by between 39 and 79 percent, and reduced average days of detention by 40 percent (Stroul, 1993).

# Children with Serious Emotional Disturbances Benefits of Comprehensive Treatment for



Source: Goldman, 1992

# Treatment for substance abuse is effective.

- Untreated, people addicted to cocaine deteriorate. While waiting for treatment to become available, participants in one study reported accelerating problems in employment and support (80 percent), increasingly severe medical problems (56 percent), and worsening substance abuse problems (48 percent) (Urschel, 1991).
- Treatment is far less expensive than the likely alternatives. One year of methadone treatment for heroin addiction costs \$3,500. One year of incarceration costs \$39,600. One year of untreated addiction costs society an estimated \$43,200 (Drug abuse treatment, NIDA, 1991).
- After one year in methadone treatment for heroin addiction, nearly three-fourths of the injecting drug users in one study had ceased injecting drugs (Ball et al., 1988).

#### SAMHSA

### In Selected Effective Programs Before and After Treatment Regular Heroin Use

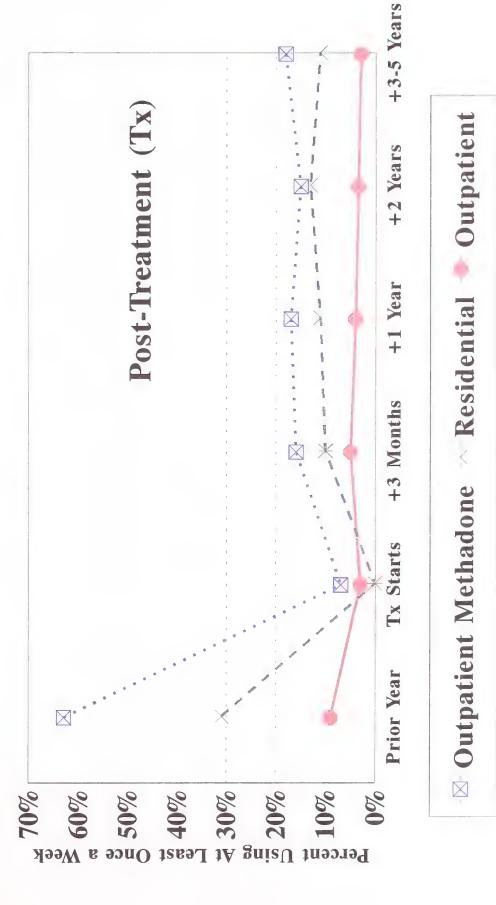


Chart 7 Source: Hubbard.

Source: Hubbard, et al., 1989

# Drug treatment reduces violence and other crime.

- In one study, 33 percent of individuals in outpatient methadone treatment for heroin addiction reported that during the year prior to treatment, they committed at least one predatory crime (Hubbard et al., 1989).
- Half of the individuals arrested for assault and homicide test positive for illicit drugs and twothirds for alcohol (Drug use forecasting, DOJ, 1993).
- In one treatment program for incarcerated felony offenders, only 35 percent of participants were re-arrested and 79 percent were employed upon release (Preliminary evaluation, SAMHSA-CSAT, 1993). The re-arrest rate for all offenders nationally is 63 percent (Drugs, crime and justice, DOJ,

### SAMHSA

## Commission of Predatory Crimes Before and After Treatment

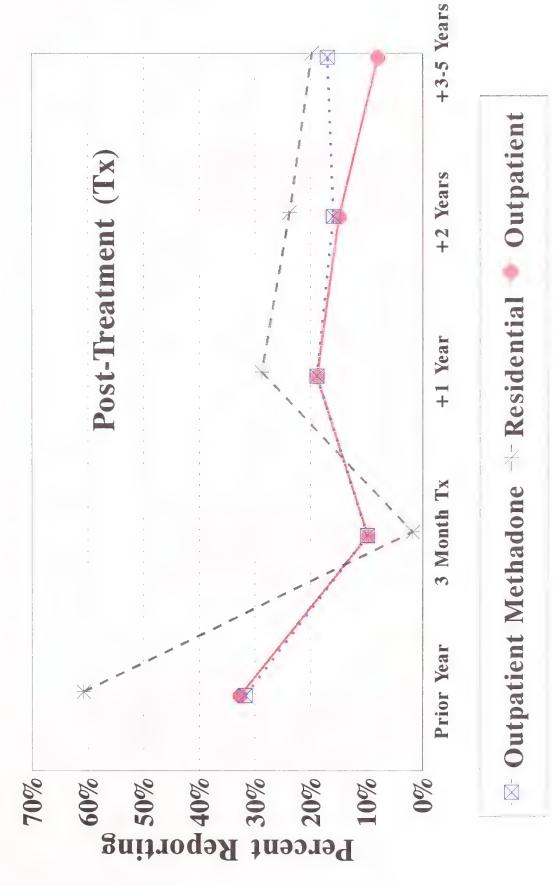


Chart 8

Source: Hubbard, et al., 1989

## enhances performance on the job and elsewhere. Treatment for addictive disorders

- An estimated 59 percent of the adults who report using an illicit drug during the past month are employed (Preliminary estimates, NHSDA, SAMHSA, 1993).
- After treatment for alcoholism, 90 percent of participants in one study consistently rated satisfactory job performance (Wright et al., 1990).
- There was a 20 percent reduction of accidents on the job following intervention by an Employee assistance Program (Yandrick, 1992).



### SAMHSA

# Alcohol and Other Drug Abuse Treatment Job Problems Drop After Inpatient

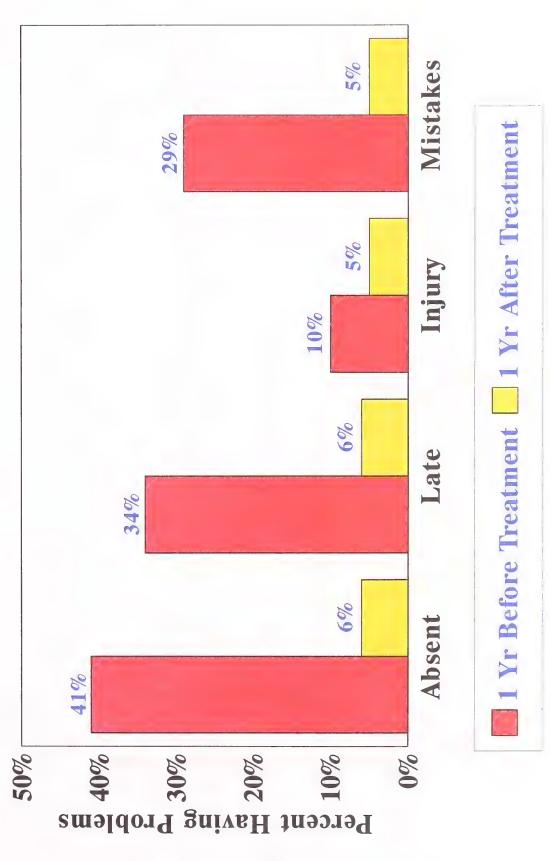


Chart 9

Source: Harrison and Hoffman, 1989

# Substance abuse treatment slows the spread of HIV/AIDS.

- Nearly three-fourths (74 percent) of all pediatric AIDS cases are related to the mother's injecting drug use or sex with an injecting drug user (The twin epidemics, NCA, 1991).
- Injecting drug use is the primary mode of transmission of HIV among women and is responsible for 71 percent of cases of women with AIDS (op. cit.).
- Over the course of one year, in one study, 4 percent of participants who were in treatment for substance abuse became HIV-positive; 16 percent of those who were not in treatment became HIV-positive (Metzger et al., 1991).

# The Effect of Drug Abuse Treatment on HIV Seropositivity Rates

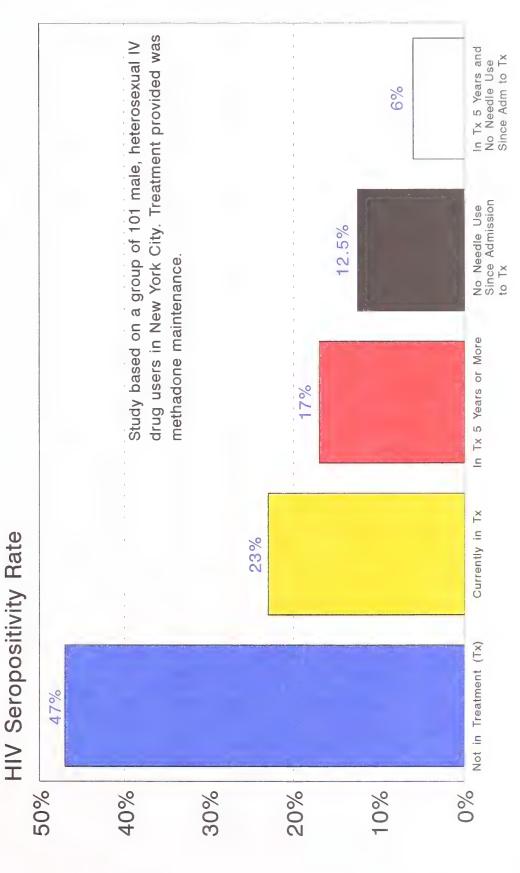


Chart 10

Source: Novick, et al., 1985

{
alore in
Province
The second secon
**************************************
1
1
Į.

## Can Be Affordable and Controllable Mental Health Treatment Costs Substance Abuse and

### substance abuse and mental health treatment costs can be affordable and controllable. With managed health care,

- treatment services and may reduce use and costs of general medical care services (Broadening A managed care health insurance benefit for alcohol abuse leads to increased use of appropriate the base, IOM, 1990).
- health and substance abuse costs were reduced by 40 percent in the first year. Subsequent year's increases were held to only 4 percent. Employee response was extremely positive When a major corporation introduced a managed mental health and substance abuse plan, mental (Effectiveness of managed care, SAMHSA, 1993).
- corporations, in an assessment of its seven largest clients, documented an average reduction in mental health and substance abuse expenses of 23 percent and no restriction of access. Mental A company that provides managed mental health and substance abuse care to major health and substance abuse claims decreased from 11.8 percent of total medical claims to 8.3



# Utilization of Inpatient Care

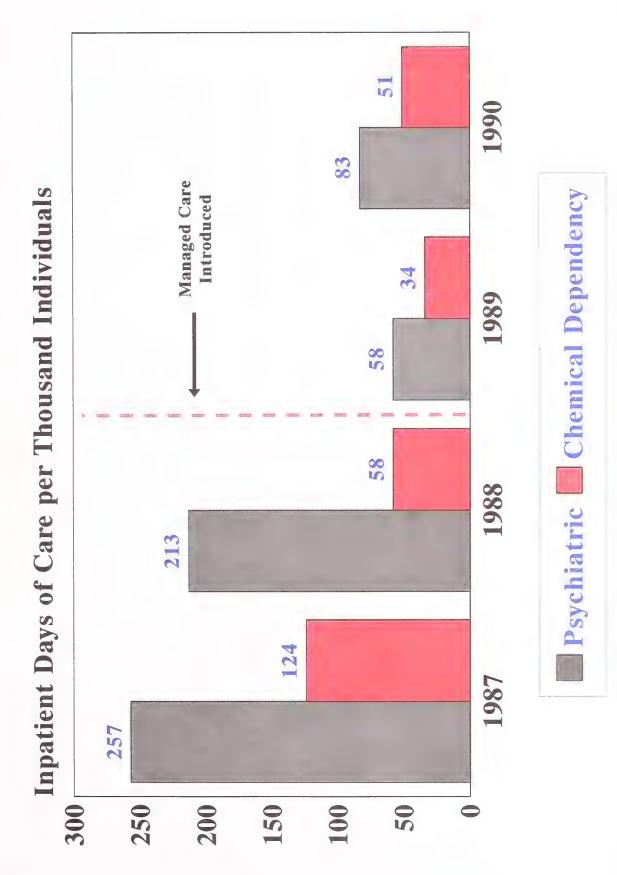


Chart 11

Source: Yandrick, 1992



Investment in Substance Abuse and Mental Health Treatment Supports Substantial Cost Offsets

# Treatment for substance abuse saves overall health care dollars.

- Without treatment, alcoholics spend twice as much on health care as people without alcohol abuse problems (Eighth Special Report to Congress, DHHS, 1993).
- by subsequent reductions in the use of medical services by the affected family, not just the Approximately one half the cost of alcohol and drug abuse treatment is offset within one year primary patient (Luckey, 1987).
- Two years after substance abuse treatment, one study documented a 40 percent reduction in the health care costs of participants (Lennox, 1993).

## Alcohol Treatment Reduces Health Care Costs

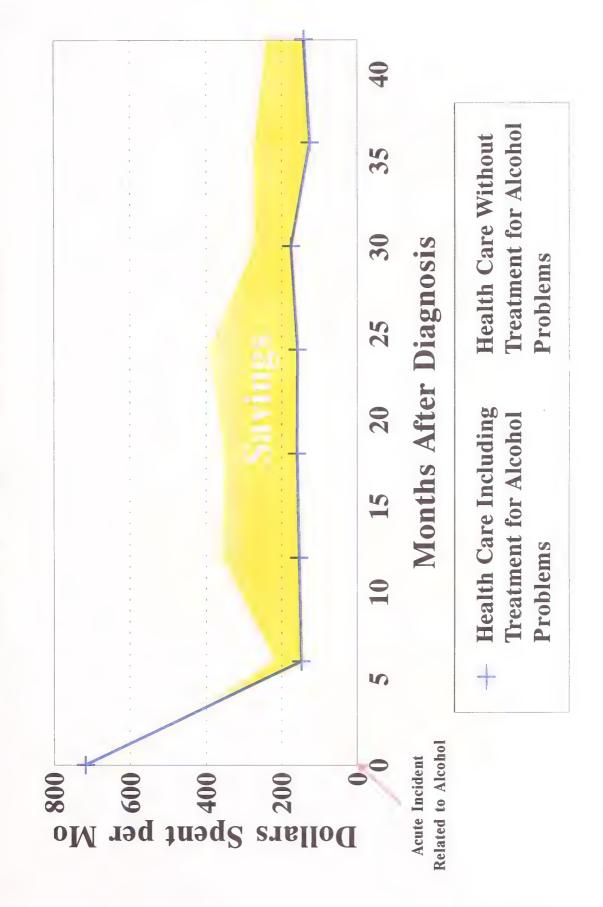


Chart 12 Source: Holder and Blose, 1992

### SAMHSA

# Treatment for mental disorders saves health care dollars.

- The general conclusion of meta-analyses on offset effect is that treatment for mental disorders is associated with about a 20 percent reduction in the overall use of health care services (Lave,
- The provision of appropriate mental health services to older people can result in even more significant reductions in their overall health care costs (Holder & Blose, 1987).

### SAMHSA

# After Treatment for Mental Disorders All Health Care Costs Drop

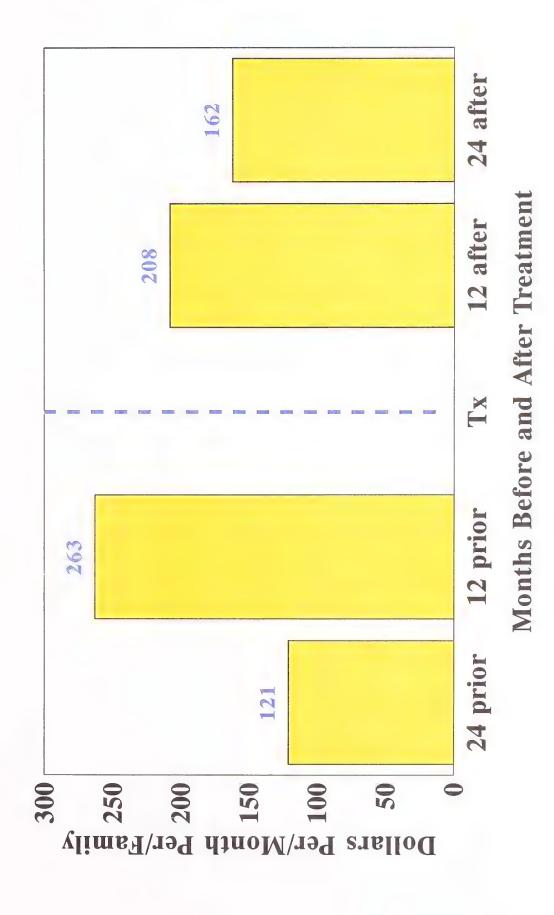


Chart 13 Source: Holder & Blose, 1987

#### References

Ball JC, Lange WR, Meyers CP, Friedman SF. Reducing the risk of AIDS through methadone maintenance treatment. J Health and Social Behavior. 1988; 29:214-226.

Biology of mental disorders. Washington, DC: US Congress, Office of Technology Assessment. 1992.

Brandenberg, et al., Social Security Administration, 1991.

Broadening the base of treatment for alcohol problems. Washington, DC: National Academy Press, Institute of Medicine. 1990.

Clinical Practice Guideline 5. Depression in primary care: Volume 2, Treatment of major depression. Rockville, MD: Agency for Health Care Policy and Research, 1993. Drug abuse treatment: An economical approach to addressing the drug problem in America. Washington, DC: Department of Health and Human

Drugs, crime and the justice system. Washington, DC: Bureau of Justice Statistics, Department of Justice. December 1992.

Drug Use Forecasting annual report. Washington, DC: National Institute of Justice, US Department of Justice. 1993; 21

Effectiveness of managed care delivery of mental health/substance abuse services. Unpublished. Rockville, MD: Substance Abuse and Mental Health Services Administration. 1993.

Eighth special report to the US Congress on alcohol and health. Rockville, MD: US Department of Health and Human Services. 1993.

Estimates from the Drug Abuse Warning Network: 1992 estimates of drug-related emergency room episodes. Rockville, MD: Substance Abuse and Mental Health Services Administration. 1993: Advance Report 4.

Gfroerer JD, Brodsky MD. Frequent cocaine users and their use of treatment. Am J Public Health. 1993;8:1150.

Johnston LD, O'Malley PM, Bachman JG. National survey results on drug use from the monitoring the future study, 1975-1992. Rockville, MD: National Institute on Drug Abuse. 1993: Vol II. Goldman SK. In Stroud, et al., Profiles of local systems of care for children and adolescents with severe emotional disturbances. Washington, DC: CASSP Technical Assistance Center, Georgetown University. 1992.





Greenberg PE, Stiglin LE, Finkelstein SN, Berndt ER. The economic burden of depression in 1990. J Clinical Psychiatry. November 1993; 54:11.

Hargreaves WA, Shumway M. Effectiveness of mental health services for the severely mentally ill. In Taube CA, Mechanic D, Hohmars AA, The future of mental health services research. Washington, DC: Department of Health and Human Services. 1989

Harrison PA, Hoffmann NG. CATOR report: Adult inpatient completers one year later. St. Paul: Ramsey Clinic. 1989.

Health Care Reform for Americans with Severe Mental Illnesses. American Journal of Psychiatry. October, 1993.

Health care reform for Americans with severe mental illnesses: Report of the National Advisory Mental Health Council. Rockville, MD: National Institute on Mental Health. 1993. Holder HD, Blose JO. The reduction of health care costs associated with alcoholism treatment: A 14-year longitudinal study. J Studies on Alcohol. 1992; 53:4:293-302. Holder HD, Blose JO. Changes in health care costs and utilization associated with mental health treatment. Hospital and Community Psychiatry. 1987; 38:1070-1075. Hubbard RL, Marsden ME, Rachal JV, Harwood HJ, Cavanaugh ER, Ginzburg HM. *Drug abuse treatment: A national study of effectiveness*. Chapel Hill, NC: University of North Carolina Press. 1989. Institute for Health Policy, Brandeis University. Substance Abuse: The Nations's Number One Health Problem. Princeton, NJ: Robert Wood Johnson Foundation, October 1993. Lave J. The cost offset effect. In Fogel BS, Furino A, Gottlieb GL, Mental health policy for older Americans: Protecting minds at risk. Washington, DC: American Psychiatric Press. 1990. Lennox R. Cost offsets of drug abuse treatment provided in the private sector. Washington, DC: presented at annual meeting, Association for Health Services Research. June, 1993. Luckey J. Justifying alcohol treatment on the basis of cost savings: The offset literature. Alcohol Health & Research World. Rockville, MD: National Institute on Alcoholism and Alcohol Abuse. 1987; Fall:8-15. Metzger DM, Woody GE, DePhillipis D. Risk for AIDS behaviors in opiate addicts in and out of methadone treatment. Manuscript submitted. 1991.

Moore et al. Seventh special report to the U.S. Congress on alcohol and health. Rockville, MD: National Institute on Alcoholism and Alcohol Abuse;



Novick DM, et al., Abstract of clinical research findings: therapeutic and historical aspects. In Problems in Drug Dependence 1985. NIDA Monographs 67, 318-320, 1985. Preliminary estimates from the 1992 National Household Survey on Drug Abuse. Rockville, MD: Substance Abuse and Mental Health Services Administration; June, 1993

Regier D, Narrow W, Rae D, Manderscheid R, Locke B, Goodwin F. The defacto U.S. mental and addictive prevalence rates of disorders and services. Arch Gen Psych. February 1993: 50; 85-94. Rice DP, Kelman S, Miller LS, Dunmeyer L. The economic costs of alcohol and drug abuse and mental illness: 1985. Rockville, MD: Alcohol, Drug Abuse and Mental Health Administration; 1990.

Rice DP, Miller LK. The economic burden of mental disorders. Rockville, MD: Substance Abuse and Mental Health Services Administration. 1993.

Stroul, BA. Systems of care for children and adolescents with emotional disorders: What are the results? Washington D.C.: CASSP Technical Assistance Center, June, 1993.

The twin epidemics of substance use and HIV. Washington, DC: National Commission on AIDS. July 1991

Urschel H, McLellan AT, Vandergrift B, Incolkoski R. An evaluation of substance abuse patients during four weeks of waiting for treatment. Manuscript. 1991.

Wright C, Grodin DM, Harig PT. Occupational outcome after military treatment for alcoholism. J Occupational Medicine. 1990. 32;1:24-32.

Yandrick RM. Taking inventory: Process and outcome studies. EAPA Exchange. July 1992, 22-29.

### SAMHSA

$\overline{n}$			
0.40			
•			



CHS LIBRARY

CHS LIBRARY